

Subregion: EAST **County:** ALPINE

Applicant: ALPINE WATERSHED GROUP

Project Title: ALPINE WATERSHED GROUP WATER QUALITY MONITORING PROGRAM

Reference Number: SNC 070256

This project is for monitoring in Alpine County at a minimum of 12 locations in an area that encompasses the headwaters of five watersheds including, the American, Carson, Mokelumne, Stanislaus, and Truckee. Monitoring will be conducted by the Alpine Watershed Group (AWG), which has conducted a similar monitoring effort at eight of these sites for the previous three years. AWG proposes to monitor water quality and discharge at specific locations to assess watershed health and provide recommendations to improve watershed health. In-kind and financial support of \$33,749 has been provided by Carson Water Subconservancy District, Alpine County, Lahontan Regional Water Quality Control Board, The Rose Foundation, Sierra Nevada Alliance, and Friends of Hope Valley.

- Ambient monitoring for water chemistry, turbidity, physical habitat, flow;
- Bioassessments including benthic macroinvertebrate collection, physical habitat, flow;
- Bacterial and nutrient sampling;
- Peak flow monitoring for turbidity and discharge;
- Summer low flow monitoring;
- Data entry, analysis, interpretation, and reporting;
- Mapping and documenting point and non-point sources of pollution and sediment;
- Identifying various land use practices and associated adverse impacts;
- Developing recommendations for alternative land-use methods to positively impact the watershed;
- Identifying and map areas in need of restoration, conservation, and enhance
- Washoe Tribe youth education and field training events (2) focused on water quality, riparian functions, invasive plants;
- Complete and submit six month progress reports to SNC.

DETAILED PROJECT DELIVERABLES	TIMELINE
Ambient monitoring for water chemistry, turbidity, physical habitat, and flow	Quarterly beginning September 2008
Bioassessments including benthic macroinvertebrate collection, physical habitat, flow	Fall 2008 & Spring 2009
Complete and submit six month progress report to SNC	October 2008
Bacterial and nutrient sampling	Monthly beginning Summer 2008
Peak flow monitoring for turbidity and discharge	Storm and High water events (2)
Summer low flow monitoring	Weekly July-October
Complete and submit twelve month progress report to SNC	April 2009
Data entry, analysis, interpretation, reporting	Ongoing
Complete and submit eighteen month progress report to SNC	October 2009

Mapping and documenting point and non-point sources of pollution and sediment	January 2010
Identify various land use practices and associated adverse impacts	February 2010
Develop recommendations for alternative land-use methods to positively impact the watershed	March 2010
Identify and map areas in need of restoration, conservation, and enhancement	March 2010
Conducting Washoe Tribe youth education and field training	TBD
Final Report/Final Payment request	April 2010

PROJECT COSTS

PROJECT BUDGET CATEGORIES	TOTAL SNC FUNDING
Coordinator-Project Management salary	\$30,480
Equipment & supplies	1,800
Lab fees	18,350
Carson Water Subconservancy District field staff compensation	1,875
Washoe Tribe Education & Training Days	2,400
Mileage to travel to monitoring sites	970
GRAND TOTAL	\$60,901

Letters of Support:

- Alpine Health and Human Services Department
- Sierra Nevada Alliance

Recommendation:

Staff recommends the authorization of this grant for the reduced amount of \$60,901. The funding request was originally submitted for \$105,650 for data collection and analysis for two years. Staff worked with the applicant to identify an adequate amount of funds to complete data collection and analysis for one year, while allowing the grantee more time to secure the funds needed to complete the next year of monitoring.

**SNC 070256
Alpine Watershed Group
Water Quality Monitoring Program
Years Four and Five**

2. Project Summary

Alpine County encompasses the headwaters for five watersheds, and is composed of several interacting landscapes and river systems. These watersheds are the American, Carson, Mokelumne, Stanislaus and the Truckee. Approximately 94% of land within Alpine County watersheds is publicly owned. This project implements procedures for assessing land use/land cover and impacts of particular water quality stressors. The Alpine Watershed Group (AWG) is currently conducting its third consecutive year of water quality monitoring within Alpine County watersheds. The water quality monitoring program enjoys widespread community support, and is anchored by a core group of 18 highly trained citizen water quality monitors. AWG is seeking funding for years four and five of the monitoring program, running from June 2008 through May 2010.

The focus of this project is on measuring chemical, physical habitat and biological parameters in order to assess land use impacts on water quality and watershed health. In partnership with environmental non-profit Earth Spirit Rejuvenation, this project will also incorporate an educational outreach component focused on youth participants from the area's Washoe Tribe.

This project will monitor a minimum of twelve sites over two years within Alpine County watersheds for the following parameters:

1. Water chemistry
2. Nutrient analysis
3. Bacterial analysis
4. Peak-flow turbidity and discharge
5. Low-flow discharge
6. Benthic Macro Invertebrate populations
7. Streamwalk Habitat Assessments

The total project cost is \$139,400. The Alpine Watershed Group has secured a total of \$33,750 in cash and in-kind match already committed to this project. The total request for SNC funds is \$105,650.